There also exists in the prior art two contact designs in which the cutting blade displacement is torsional, but where no residual force is present at the contacts. These are the slotted tubular contact disclosed in US 4,591,223 (Vachhani) and the "V" contact disclosed in US 5,552,733 (White). In both of these contacts the blade displacement is torsional, but they retain the wire in the correct position without the need for the clamping elements disclosed in US 4,171,857.

However, these two contacts also have drawbacks: firstly they use more material than a planar contact, and they are more complex in manufacture, requiring part-stamping, folding or rolling operations, which are secondary stations in the manufacturing tooling. Furthermore, and by the nature of their designs, they create notches on diametrically opposing sides of the wire conductor, which can lead to premature mechanical failure at this point. This is a known weakness of these concepts.

Therefore, it is an object of the new design to provide an essentially planar contact, which may be mounted at an angle to the conductor, which does not apply residual torsional force to the wire, and which does not create notches at points which are diametrically opposite one another across the conductor.

Accordingly, one aspect of the present invention provides a contact for establishing electrical connection with an electrically conductive wire, the contact being manufactured from a planar material and having a base and a pair of elongate blades extending from the base and defining therebetween a channel within which a wire is to be received, a flat contact surface of one blade being opposite a cutting edge of the other blade and lying on opposite sides of the channel, the flat contact surface maintaining the wire substantially parallel to the flat contact surface through the channel.

Preferably, one blade is shaped so as to present the flat contact surface to the cutting edge of the other blade.

Conveniently, the shaped blade prescribes an arc about an axis parallel to the longitudinal axis of the shaped blade.

Advantageously, the blades each have two major surfaces and two minor surfaces and the flat contact surface comprises a minor surface of one blade proximate the other blade.

Preferably, the blades each have two major surfaces and two minor surfaces and the flat contact surface comprises a portion of a major surface of one blade proximate the other blade.

Conveniently, the blades each have two major surfaces and two minor surfaces and the cutting edge comprises a corner of a major surface with a minor surface of the other blade proximate the one blade.

Advantageously, the flat contact surface lies in a first plane and the planes of the two surfaces defining the cutting edge lie in a second and a third plane respectively, the second and third planes being respectively between 30° and 60° to the first plane.

Preferably, the second and third planes are in the region of 45° to the first plane.

Another aspect of the present invention provides a contact for establishing electrical connection with an electrically conductive wire, the contact being

manufactured from a planar material and having a base and a pair of elongate blades extending from the base and defining therebetween a channel within which a wire is to be received, a flat contact surface of one blade and a cutting edge of the other blade lying on opposite sides of the channel, wherein a line drawn parallel to the flat contact surface and passing through the point defined by the end of the cutting edge is not parallel to either of the surfaces defining the cutting edge.

Preferably, an insulation displacement connector includes one or more contacts embodying the present invention.

In order that the present invention may be more readily understood, embodiments thereof will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a plan view of a conventional insulation displacement connector incorporating clamping elements;

Figure 2 is a perspective view of a contact embodying the present invention;

Figure 3 is a schematic plan view of the blades only of the contact of Figure 2;

Figures 4 to 7 are schematic plan views of the blades only of further contact embodying the present invention; and

Figure 8 is a schematic plan view of one end of an insulation displacement connector fitted with contacts embodying the present invention.

CLAIMS:

1. A contact for establishing electrical connection with an electrically conductive wire, the contact being manufactured from a planar material and having a base and a pair of elongate blades extending from the base and defining therebetween a channel within which a wire is to be received, a flat contact surface of one blade being opposite a cutting edge of the other blade and lying on opposite sides of the channel, the flat contact surface maintaining the wire substantially parallel to the flat contact surface through the channel.

2. A contact according to Claim 1, wherein one blade is shaped so as to present the flat contact surface to the cutting edge of the other blade.

3. A contact according to Claim 2, wherein the shaped blade prescribes an arc about an axis parallel to the longitudinal axis of the shaped blade.

4. A contact according to any preceding claim, wherein the blades each have two major surfaces and two minor surfaces and the flat contact surface comprises a minor surface of one blade proximate the other blade.

5. A contact according to any one of Claims 1 to 3, wherein the blades each have two major surfaces and two minor surfaces and the flat contact surface comprises a portion of a major surface of one blade proximate the other blade.

6. A contact according to any preceding claim, wherein the blades each have two major surfaces and two minor surfaces and the cutting edge comprises a corner of a major surface with a minor surface of the other blade proximate the one blade.

7. A contact according to Claim 5, wherein the flat contact surface lies in a first plane and the planes of the two surfaces defining the cutting edge lie in a second and a third plane respectively, the second and third planes being respectively between 30° and 60° to the first plane.

8. A contact according to Claim 7, wherein the second and third planes are in the region of 45° to the first plane.

9. A contact for establishing electrical connection with an electrically conductive wire, the contact being manufactured from a planar material and having a base and a pair of elongate blades extending from the base and defining therebetween a channel within which a wire is to be received, a flat contact surface of one blade and a cutting edge of the other blade lying on opposite sides of the channel, wherein a line drawn parallel to the flat contact surface and passing through the point defined by the end of the cutting edge is not parallel to either of the surfaces defining the cutting edge.

10. An insulation displacement connector including a contact according to any preceding claim.

11. A contact substantially as hereinbefore described with reference to and as shown in the accompanying drawings.